Trees Along Streams

Corridors of trees growing on moist soils along streams are called "riparian" woodlands. Many kinds of wildlife use riparian woodlands for all or part of their habitat needs, while others spend their entire life in these zones.

In rural Missouri, riparian woodlands may be the only woody cover amidst fields and pastures. In forests, these zones are differentiated from the other woodlands because of the kinds of trees that grow in the stream bottom.

Value To Wildlife

The variety of vegetation and a close water source are qualities that make riparian woodlands important to wildlife. Not only do these woodlands provide food, dens, roosts, and nesting sites, but they also serve as important wildlife travel lanes.

Riparian woodlands also benefit the stream and the wildlife that lives in the water. The root systems form a buffer zone that keeps sediments and other pollutants from entering the stream while holding the stream banks in place. Trees attract insects for wildlife food, provide shade over the water, and supply enriching organic nutrients. Fallen trees provide cover for fish and a basking area for snakes, lizards and turtles.

Improvement for Wildlife Habitat

Managing the riparian zone to benefit wildlife and the stream next to it takes some careful planning. If riparian
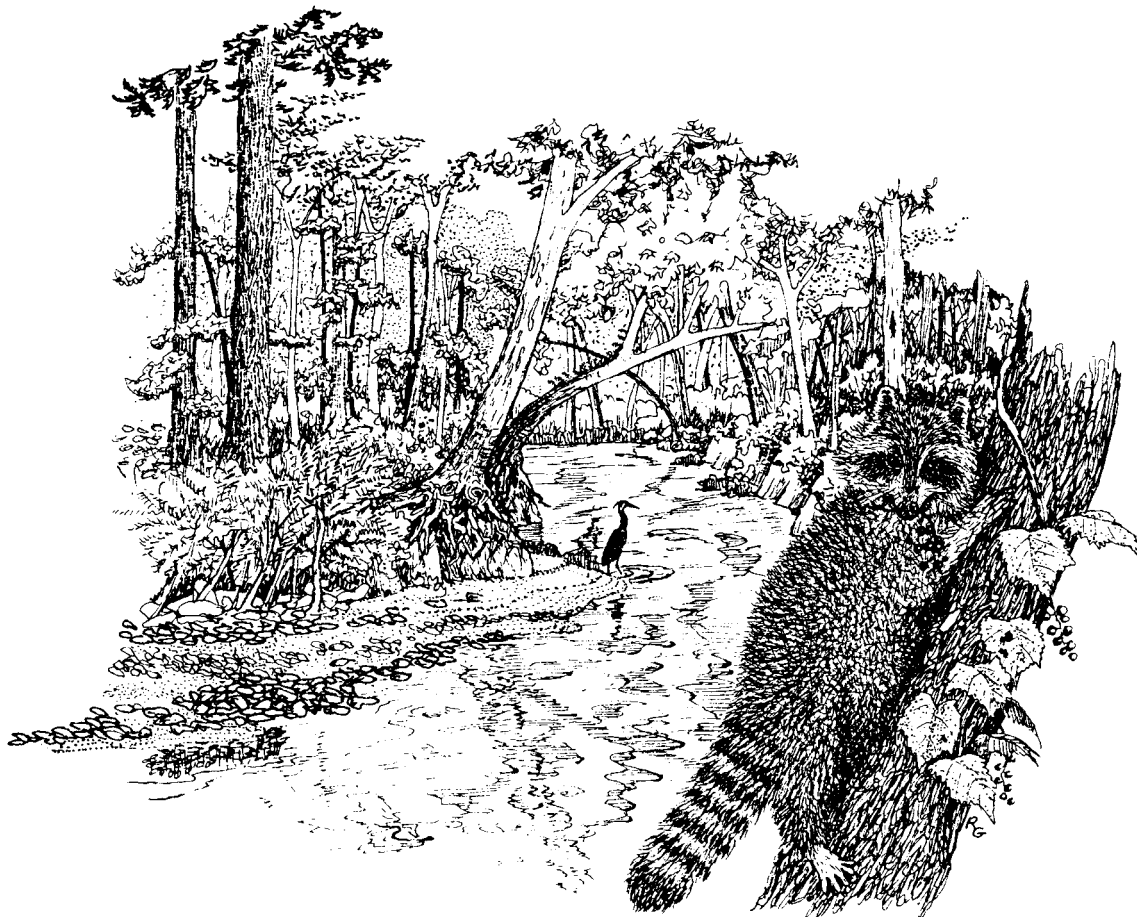
Riparian woodlands are important to many kinds of wildlife.
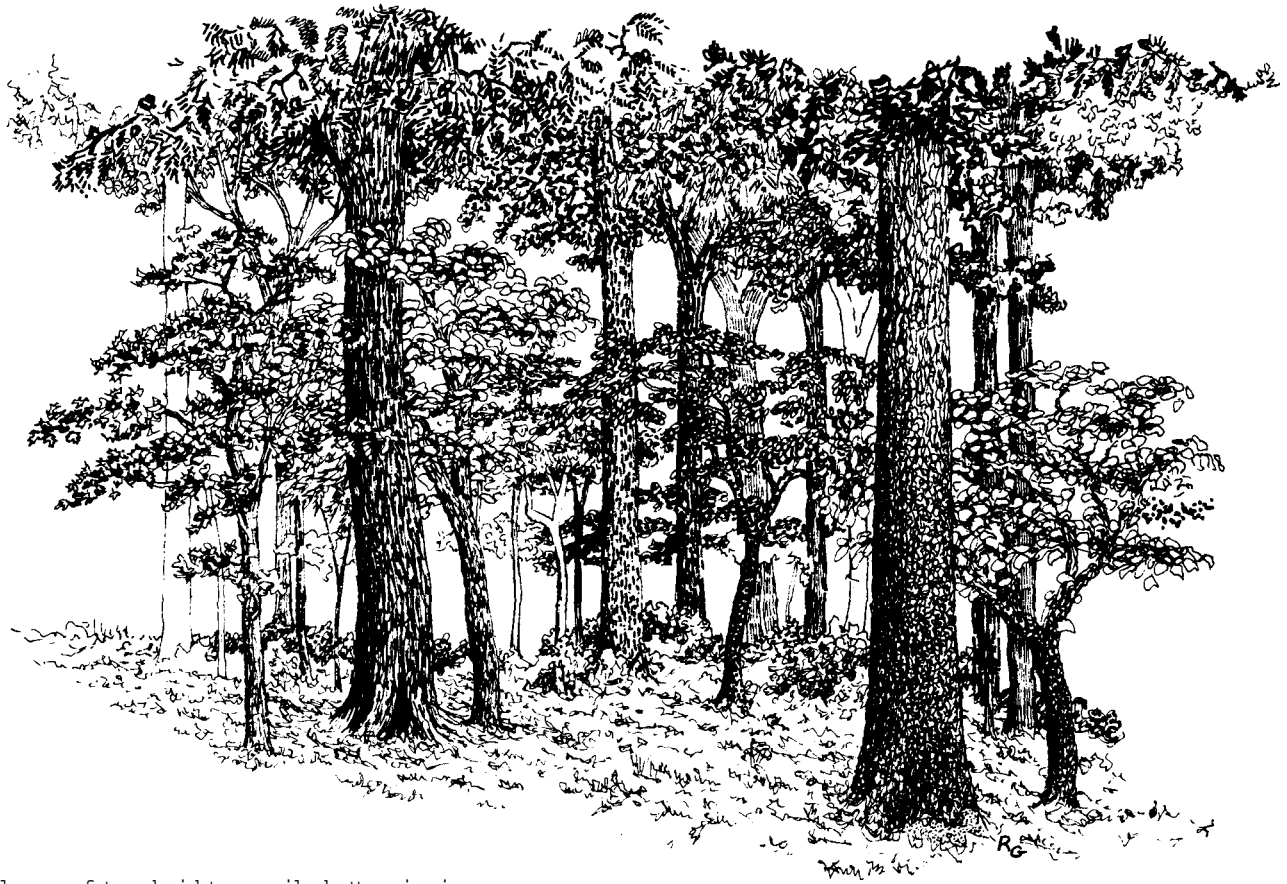
Several layers of tree heights provide better riparian zones.

habitat already exists, the first priority is to protect a 100-200 foot wide corridor of trees on each side of the stream .

Managing valuable individual trees in these areas does not have to destroy the riparian habitat values. For example, growing only black walnut trees would eventually decrease diversity of trees and lessen the wildlife habitat value. On the other hand, cutting all black walnut trees without allowing them to grow back would deprive some wildlife of an important food source.

Encouraging natural tree invasion or planting seedlings will widen or re-establish very narrow or non-existent riparian zones. Most likely to grow first would be trees like cottonwood, green ash, willow, silver maple, elm and boxelder. Slower growing trees with heavy seeds, like hickory, oak and black walnut, may take years to invade.

Seeding from nearby trees will speed up natural regeneration. Cottonwood, green ash, silver maple, willow, sycamore, elm, sweetgum and yellow-poplar have wind-blown seeds which will germinate if they land on bare soil. Providing bare soil near these trees encourages germination. Planting seedlings such as pin oak, pecan, black walnut, and river birch within the naturally seeded stands will provide a mixture of trees. Faster growing trees provide cavities earlier, while slower growing, long-lived trees replace them in later years.

Management for Wood Products

Many landowners manage riparian woodlands to improve the growth of trees for wood products. Because riparian zones usually have excellent soil, they are productive and can grow high quality, economically valuable trees such as black walnut and pecan.

Intensive management of black walnut trees and native pecan groves for nut production requires some wildlife habitat tradeoffs, however. Since one type of tree is favored, variety within the woodland is reduced.

A timber cut must be done carefully to minimize loss of snags, den trees and diversity, which are particularly important to wildlife. Timber stand improvement (TSI) practices can help increase production of wood products while maintaining valuable wildlife habitat.

Riparian woodlands often develop two levels of tree heights; one high level of tall trees such as cottonwood, sycamore and maple, and one lower level consisting of trees like mulberry, boxelder, spicebush and redbud. When tall trees are cut, a thick canopy of shorter trees can develop. These shorter trees shade the forest floor and discourage the growth of new tall trees that would later replace those cut. If a dense low canopy exists, it should be cut back at the same time the taller trees are cut, to allow all trees an equal chance to develop.

Protecting Riparian Woodlands

Riparian woodlands need extra protection because of the high wildlife use and ability to grow valuable trees. When cutting in the riparian zone, a few simple practices will reduce damage to the area. When a stream crossing is need-

ed, the road should cross at right angles. Also, never locate logging roads in a stream bed. Using diversion bars and ditches to channel water out of logging roads will divert and disperse the run-off water, causing less erosion. This will ultimately cause less sediment to be deposited in the streams.

Avoid removing trees that have fallen into the stream or appear ready to do so. These trees are helping hold the bank in place. When they eventually fall, they create important instream habitat. Remove only trees that are causing problems in the stream.

Fence livestock outside the riparian zones to avoid erosion and vegetation destruction. Where water is needed, a fenced chute will limit livestock to one area of the bank and reduce erosion.

Riparian woodlands are rapidly disappearing in some regions due to land clearing for agriculture and housing development. Stream straightening also removes natural tree cover and harms a wide variety of plants and animals. Free technical advice for managing a riparian zone to benefit forests, fish and wildlife is available through the Missouri Department of Conservation.
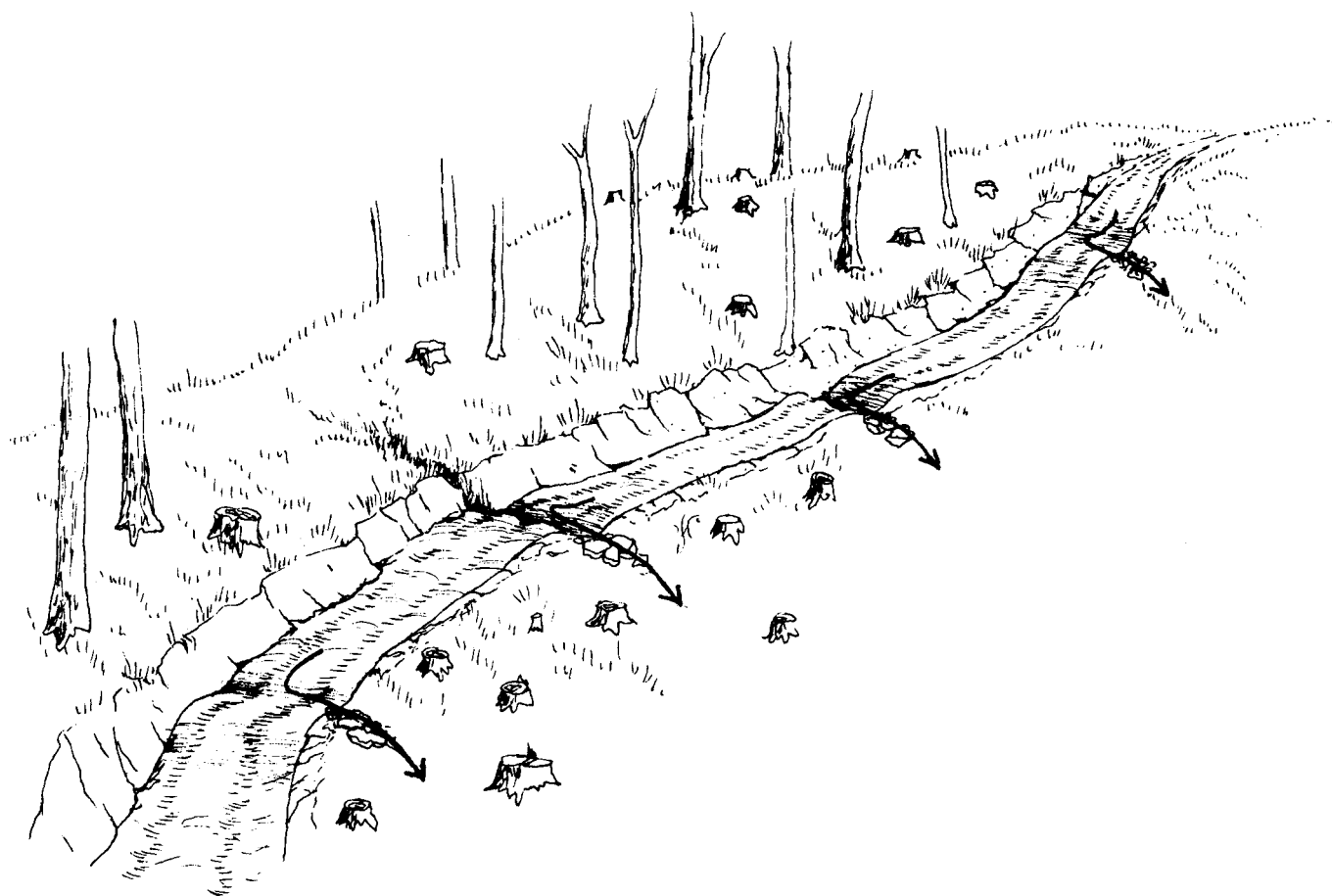
Roads should be constructed to quickly funnel water away from the roadbed.
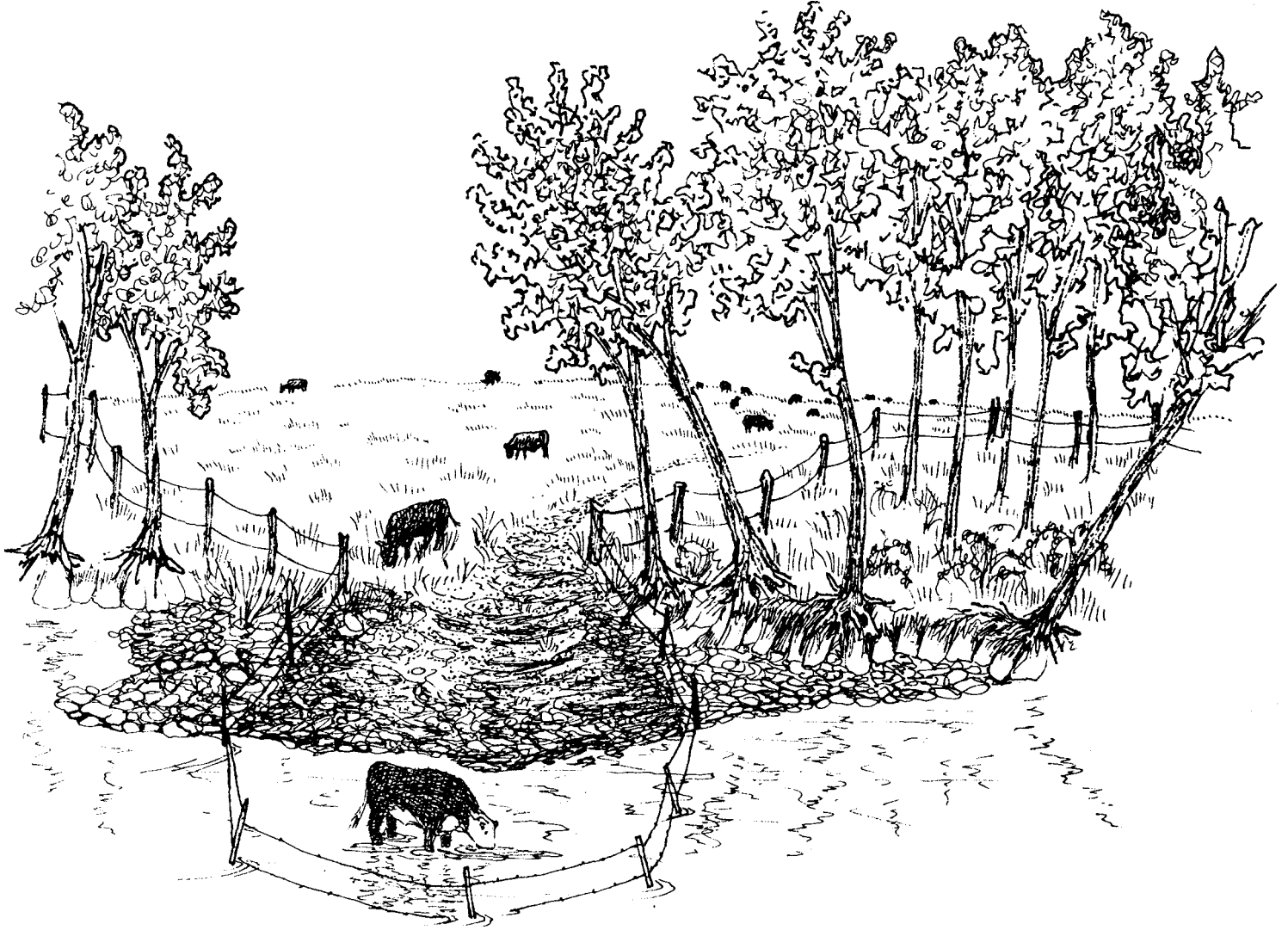
Livestock watering areas should be restricted.